Distributive Property With Variables Worksheets

1) Solve the following by using distributive property of multiplication: 5×51

2) Which of the following shows an example of distributive property?
   a. a(b + c) = ab + ac
   b. a(b + c) = ab – ac
   c. a(b – c) = ab + ac
   d. a(b – c) = ac – ab

3) Alan was walking to his school when he realized that he had 5 notebooks each of Mathematics, Science, and English. So, he thought that he has a total of 5×(1+1+1)=5×3=15 notebooks. Did he apply distributive property while counting the total number of books?

4) Match the following:

a. 6×(17-7)	i. 7×10=70
b. 3×(16+4)	ii. 6×10=60
c. 7×(6+4)	iii. 3×20=60

5) Solve using distributive property:
    a. 6×(14+6)
    b. 5×(11+9)

6) Brian and his friends are having a marshmallow party. While heating up marshmallows, they put 3 big pieces in each of the first two sticks, and 7 small pieces in next two sticks each. Can you find the total number pieces in all 4 sticks together?

7) Solve: (8×45)+(8×5)

8) Which of the following is the correct form for distributive property of subtraction?
    a. a(b + c) = ab + ac
    b. a(b − c) = ab − ac

9) "You can either first add and then multiply, or first multiply individually then add. Result will remain same for both cases." The given statement is
    a. True
    b. False

10) Find the value obtained when twelve times of seven is added to twelve times of three.

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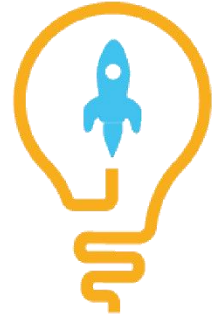
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ANSWERS

1)	255
2)	a
3)	Yes
4)	a =ii b =iii c =i
5)	a) 120 b) 100
6)	20
7)	100
8)	b
9)	a) True
10)	120

FUN FACT

1. In BODMAS, we solve the brackets first. While in distributive property, we try to open the brackets rather than solving them.

2. Just like that of addition, distributive property can also be applied for numbers involving subtraction. For example: 4 ×249 can be split into 4× (250-1).

3. While solving multiplication problems involving huge numbers, it is always beneficial to "distribute" the given numbers into easier ones that can be multiplied.